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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/029,974

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Tommy Kristensen Bysted

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EXAMINER

KHOO, FOONG LIN

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,974

Applicant(s)

BYSTED ET AL.

Examiner

F. Lin Khoo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: On page 5, paragraph 7, line 5, "memory 210" is not shown in Fig.3.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

2. Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/029,929 in view of Hiramatsu (U.S. Publication No. 2003/0072253).

With respect to claims 1 and 4, the instant application claims all the limitations of claims 1 and 4, respectively, of the copending Application 10/029,929 except a code identifying selected manners included in physical layer signal. The copending Application 10/029,929 claims a code identifying selected manners included in physical layer signal. However, the copending Application 10/029,929 does not claim the selected manner in dependence on the modulation method employed in physical layer. Hiramatsu in the same field of endeavor discloses a code being the TFCI which is a signal for reporting the downlink shared channel (DSCH) transmission format to the receiving side indicating the modulation method and power ratio information, in particular, are set in this TFCI (Fig. 5, see paragraph [0026]). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the modulation information in the TFCI as taught by Hiramatsu in the system of the copending Application 10/029,929 to provide a mobile station apparatus and a demodulation method that enable signal points to be arranged accurately and QAM demodulation to be performed with high precision (see paragraph [0010]).

With respect to claims 2 and 5, the claims correspond to claims 1 and 4, respectively, of the copending Application 10/029,974.

With respect to claims 3 and 6, the instant application claims all the limitations of claim 3 and 6, respectively, of the copending Application 10/029,974 except code included in each burst. The copending Application 10/029,929 claims code distributed

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across a plurality of bursts. The code included in each burst is a subset of code distributed across a plurality of bursts.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Hiramatsu (U.S. Publication No. 2003/0072253).

Regarding Claim 1, Hiramatsu discloses a method a transmitting a radio signal, the method comprising implementing a protocol stack having at least a physical layer and a medium access control layer including a plurality of transport channels which are multiplexed to produce a physical layer signal, each transport channel being processed selectively in a first respectively selected manner or a second respectively selected manner in dependence on the modulation method employed in said physical layer (all

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terrestrial mobile radio communication inherently conforms to a OSI reference model protocol stack with a medium access control layer (layer 2) and a physical layer (layer 1) which includes a plurality of transport channels which are multiplexed to produce a physical layer signal, as evidenced in Technical Specification 3GPP TS 25.302 V3.6.0, Sections 4 and 5. The TFCI is a signal for reporting the Downlink Shared Channel (DSCH) transmission format to the receiving side and a signal indicating the modulation method and power ratio information, in particular, are set in this TFCI. The transmission format or transport format is the selected manner being processed. The transmission format or transport format with the TFCI including the modulation method is associated with each transport channel being processed selectively in a first respectively selected manner or a second respectively selected manner in dependence on the modulation method employed in the physical layer (see paragraph [0026]).

Regarding Claim 2, Hiramatsu discloses wherein a code identifying said selected manners is included in said physical layer signal (Fig. 5; see paragraphs [0026,0030]. The Dedicate Physical Channel (DPCH) modulation/spreading section 104-K sets the signal indicating the modulation method and power ratio information from the controller 101 in the TFCI (code) and composes a frame with this TFCI a dedicated pilot, and data and this is equivalent to code identifying the selected manner included in the physical layer signal).

Regarding Claim 3, Hiramatsu discloses wherein said physical layer signal comprises a TDMA signal and said code is included in each burst of said signal in a

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predetermined location (Fig. 5; see paragraphs [0005, 0026, 0030]. A DSCH is a channel for transmitting QAM modulated data to mobile station apparatuses by time division, and the mobile station apparatus being transmitted to can be changed every frame. The time division and frame are associated with a TDMA signal and the code (TFI) transmitted in predetermined locations in each frame is associated with the code included in each burst of the signal in a predetermined location as shown in Fig. 5. This is further evidenced in the Technical Specification 3G TS 25 221 V3.0.0, Sections 5, 5.1 and 5.2.2.1).

Claims 4-6 are similar in scope as that of corresponding claims 1-3 and hence are rejected for the same reasons set forth above. A radio transmitter for performing the method of transmitting a radio signal is inherent (Fig. 4, apparatus 100; see paragraph [0023]).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,826,193 to Peisa relates to a method of allocating transmission resources at a Media Access Control (MAC) entity of a node of a Universal Mobile Telecommunications System (UMTS).

U.S. Patent No. 6,909,887 to Fauconnier et al. relates to a method of controlling a circuit mode communication logical channel between a radio terminal and a cellular radiocommunication infrastructure.

U.S. Patent No. 6,813,284 to Vayanos et al. relates to a method and system that enables multiplexing a plurality of data streams onto one data stream based on data stream priorities, available transport format combinations (TFCs), and transmission time interval (TTI) constraints of transport frames within the TFCs.

U.S. Patent No. 6,646,993 to Davies et al. relates to a communication apparatus and method of format adaptation particularly suited for a CDMA cellular communication system.

U.S. Patent No. 2005/0018614 to Kiran relates to a receiver for data-rate detection in a signal received from a transmitter of a cellular radio communication system including multiple transport channels supporting variable data-rate transmissions.

The above prior art are cited to further show the same field of endeavor with respect to the applicant's claimed invention.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Lin Khoo whose telephone number is 571-272-5508. The examiner can normally be reached on flex time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of stylized, overlapping loops and a long horizontal stroke at the end.

WELLINGTON CHIN
Supervisory Patent Examiner